

Automotive Shock Absorbers/Struts

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 11/24/2014

Revision date: 11/24/2014

Version: 1.0

SECTION 1: Product and Company Identification

1.1. Product identifier

Product name : Automotive Shock Absorbers/Struts

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Automotive - Suspension systems.

Product description : This product is a metallic shock/strut that contains 100-400mL of Hydraulic oil & .35 Mpa pressurized nitrogen gas sealed within the damper.

1.3. Details of the supplier of the safety data sheet

KYB Americas Corporation
2625 North Morton
Franklin, IN 46131 - USA
T (317) 736-7774

1.4. Emergency telephone number

Emergency number : (800) 424-9300

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

GHS-US classification

This product as sold is classified as an "article" under the OSHA HAZCOM 2012, Subpart Z - Toxic & Hazardous Substances, and as such is exempt from the requirement for classification. However, there is Shock Oil mixture and nitrogen gas sealed in the article that may present the following hazards if released:

Gases Under Pressure - Compressed gas
Aspiration Toxicity 1

2.2. Label elements

GHS-US labelling

This product as sold is classified as an "article" under the OSHA HAZCOM 2012, Subpart Z - Toxic & Hazardous Substances, and as such is exempt from the requirement for labeling. For reference, the label elements that would apply to the hazards for the Shock Oil mixture and nitrogen gas are as follows:

Hazard pictograms (GHS-US) :



GHS04

GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.

Precautionary statements (GHS-US) : If swallowed: Immediately call a poison center or doctor. Do NOT induce vomiting. Protect from sunlight. Store in a well-ventilated place. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on Ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product identifier	%	GHS-US classification
Steel/Rubber	Not available	75 - 85	Not classified
Shock Oil 1	Proprietary	10 - 30	Asp. Tox. 1
Shock Oil 2	Proprietary	1 - 5	Acute Tox. 4 (Inhalation) Asp. Tox. 1
Nitrogen	(CAS No) 7727-37-9	< 0.1	Press. Gas

* The specific chemical identity and exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First Aid Measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If nitrogen gas or oil mists/vapours are inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical advice/attention.
- First-aid measures after skin contact : In case of contact with the Shock Oil mixture, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact with the Shock Oil mixture, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If the Shock Oil mixture is swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : If damper seal is broken then gas, mists or vapours may leak and cause respiratory tract irritation
- Symptoms/injuries after skin contact : Chemical exposure may cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/injuries after eye contact : Chemical exposure may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/injuries after ingestion : Shock Oil mixture may be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting Measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam, carbon dioxide, or dry chemical.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon and oxides of nitrogen. Gas pressurized units will vent (at seal) when exposed to fire. Heat will increase pressure and may lead to the receptacle bursting.

5.3. Advice for firefighters

- Firefighting instructions : Use water to keep containers exposed to fire cool. Use indirect water spray or water fog.
- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and cleaning up

- For containment : Eliminate sources of ignition. Contain and/or absorb Shock Oil mixture spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Pick up large pieces, then place in a suitable container. Sweep up any excess absorbant. Provide ventilation.

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6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. When using do not eat, drink or smoke. Pressurized container: Do not pierce or burn, even after use.
- Hygiene measures : Wash hands before eating, drinking, or smoking. Launder contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of reach of children. Store away from direct sunlight or other heat sources. Store in a cool, dry, well-ventilated place.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Steel/Rubber	
ACGIH	Not applicable
OSHA	Not applicable
Shock Oil 1	
ACGIH	Not applicable
OSHA	Not applicable
Shock Oil 2	
ACGIH	5 mg/m ³ (mist)
OSHA	5 mg/m ³ (mist)
Nitrogen (7727-37-9)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

- Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
- Hand protection : Wear chemically resistant protective gloves.
- Eye protection : Safety glasses or goggles are recommended when using product.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Environmental exposure controls : Maintain levels below Community environmental protection thresholds.
- Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

- Physical state : Shock/strut: Solid
Shock Oil mixture: Liquid
Nitrogen gas: Gas
- Appearance : Hydraulic oil & nitrogen gas in sealed metallic shock/struts.
- Colour : Metallic
- Odour : No data available
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available

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Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Shock Oil mixture:140 - 155 °C (284 - 311°F)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and Reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. Do not store at temperatures above 50 °C (122 °F).

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials. Sources of ignition.

10.5. Incompatible materials

Strong mineral acids, oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon and oxides of nitrogen

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity : Not classified.

Shock Oil 1	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	3900 mg/m ³ /4h

Shock Oil 2	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	2.18 mg/l/4h

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.

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Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Based on available data, the classification criteria are not met.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation	: If damper seal is broken then gas, mists or vapours may leak and cause respiratory tract irritation
Symptoms/injuries after skin contact	: Chemical exposure may cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact	: Chemical exposure may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion	: Shock Oil mixture may be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological Information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

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Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.


SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport Information

In accordance with DOT

UN-No. (DOT)	: UN3164
Proper Shipping Name (DOT)	: Articles, pressurized pneumatic or hydraulic containing non-flammable gas
Department of Transportation (DOT) Hazard Classes	: 2.2
Hazard labels (DOT)	: 

Additional information

Other information	: No supplementary information available.
Special transport precautions	: Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory Information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. US State regulations

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State or local regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
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SECTION 16: Other Information

Indication of changes	: None.
Date of issue	: 11/24/2014
Other information	: None.

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